

U.S. Application No. 09/506,808

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CENTRAL FAX CENTER

FEB 20 2008**Listing of Claims:**

1. – 33. (canceled)

34. (previously presented) An auction method of determining a successful bidder, the auction method being executed in a server computer connected with a plurality of client computers via a network, each client computer belonging to a respective bidder, the auction method comprising the steps of:

a) transmitting, from the server computer, information on a product to be auctioned to the plurality of client computers via the network;

b) receiving, in the server computer, price information for determining a price that a bidder thinks acceptable to pay for the product from each of the plurality of client computers via the network;

c) judging, in the server computer, whether a current auction price is equal to or lower than the price that the bidder thinks acceptable to pay, for each bidder;

d) determining, in the server computer, each remaining bidder who has sent the price information by which it is judged that the current auction price is equal to or lower than the price in step c);

e) judging, in the server computer, whether there is more than one remaining bidder as a result of said determining in step d), wherein a state in which there is more than one remaining bidder as a result of said determining in step (d) is defined as a competitive state;

f) in response to a judgment in step (e) that a competitive state does not occur, determining, in the server computer, the remaining bidder as a successful bidder; and

g) in response to a judgment in step (e) that a competitive state occurs, increasing the auction price by a predetermined value and repeating steps c), d), and e).

35. (previously presented) An auction method in accordance with claim 34, wherein the price information includes a desired price with which a bidder desires to purchase the product and an acceptable price which the bidder accepts to pay in addition to the desired price.

36. (previously presented) An auction method in accordance with claim 34, further comprising the steps of:

h) determining, in the server computer, an abandoned bidder who sent the price information by which it is judged that the current auction price is higher than the price in step c); and

i) excluding the abandoned bidder.

37. (previously presented) An auction device of determining a successful bidder, the auction device being connected with a plurality of client computers via a network, each client computer belonging to a respective bidder, the auction device comprising:

first means for transmitting information on a product to be auctioned to the plurality of client computers via the network;

second means for receiving price information for determining a price that a bidder thinks acceptable to pay for the product from each of the plurality of client computers via the network;

third means for judging whether a current auction price is equal to or lower than the price that the bidder thinks acceptable to pay, for each bidder;

fourth means for determining each remaining bidder who has sent the price information by which it is judged that the current auction price is equal to or lower than the price in the third means;

fifth means for judging whether there is more than one remaining bidder as a result of said determining by said determining means, wherein a state in which there is more than one remaining bidder as a result of said determining is defined as a competitive state; and

sixth means for, in response to judgment in the fifth means that the competitive state does not occur, determining the remaining bidder as a successful bidder,

wherein, in response to judgment in the fifth means that the competitive state occurs, the third, fourth, and fifth means are repeatedly executed with the auction price increased by a predetermined value.

38. (previously presented) An auction device in accordance with claim 37, wherein the price information includes a desired price with which a bidder desires to purchase the product and an acceptable price which the bidder accepts to pay in addition to the desired price.

39. (previously presented) An auction device in accordance with claim 37, further comprising:

seventh means for determining an abandoned bidder who sent the price information by which it is judged in the third means that the current auction price is higher than the price; and

eighth means for excluding the abandoned bidder.

40. (previously presented) An auction method of determining a successful bidder, the auction method being executed in a server computer connected with a plurality of client computers via a network, each client computer belonging to a respective bidder, the auction method comprising the steps of:

a) transmitting, from the server computer, information on a product to be auctioned to the plurality of client computers via the network;

b) receiving, in the server computer, order information for the product from each of the plurality of client computers via the network;

c) judging, in the server computer, for each bidder, whether a current auction price is equal to or lower than a price that a bidder thinks acceptable to pay for the product, based on the received order information;

d) determining, in the server computer, each remaining bidder who has sent the order information based on which it is judged that the current auction price is equal to or lower than the price in step c);

e) judging, in the server computer, whether there is more than one remaining bidder as a result of said determining in step d), wherein a state in which there is more than one remaining bidder as a result of said determining in step (d) is defined as a competitive state;

f) in response to a judgment in step (e) that the competitive state does not occur, determining, in the server computer, the remaining bidder as a successful bidder; and

g) in response to a judgment in step (e) that the competitive state occurs, increasing the auction price by a predetermined value and repeating steps c), d), and e).

41. (previously presented) An auction method in accordance with claim 40, wherein the price that a bidder thinks acceptable to pay is a sum total of a desired price with which the bidder desires to purchase the product and an acceptable price which the bidder accepts to pay in addition to the desired price.

42. (previously presented) An auction method in accordance with claim 41, wherein the order information includes the desired price and the acceptable price.

43. (previously presented) An auction method in accordance with claim 40, wherein the order information further includes a rule defining a condition for participating in the auction, and

wherein step c) judges whether the current auction price is equal to or lower than the price that the bidder thinks acceptable to pay based on the rule for each bidder.

44. (previously presented) An auction method in accordance with claim 40, further comprising the steps of:

h) determining, in the server computer, an abandoned bidder who sent the order information by which it is judged that the current auction price is higher than the price in step c); and

i) excluding the abandoned bidder.

45. (previously presented) An auction device for determining a successful bidder, the auction device being connected with a plurality of client computers via a network, each client computer belonging to a respective bidder, the auction device comprising:

first means for transmitting information on a product to be auctioned to the plurality of client computers via the network;

second means for receiving order information from each of the plurality of client computers via the network;

third means for judging, for each bidder, whether a current auction price is equal to or lower than a price that the bidder thinks acceptable to pay for the product, based on the order information;

fourth means for determining each remaining bidder who has sent the order information by which it is judged that the current auction price is equal to or lower than the price in the third means;

fifth means for judging whether there is more than one remaining bidder as a result of said determining by said determining means, wherein a state in which there is more than one remaining bidder as a result of said determining is defined as a competitive state, and

sixth means for, in response to judgment in the fifth means that the competitive state does not occur, determining the remaining bidder as a successful bidder,

wherein, in response to judgment in the fifth means that the competitive state occurs, the third, fourth, and fifth means are repeatedly executed with the auction price increased by a predetermined value.

46. (previously presented) An auction device in accordance with claim 45, wherein the price that a bidder thinks acceptable to pay is a sum total of a desired price with which the bidder desires to purchase the product and an acceptable price which the bidder accepts to pay in addition to the desired price.

47. (previously presented) An auction device in accordance with claim 46, wherein the order information includes the desired price and the acceptable price.

48. (previously presented) An auction device in accordance with claim 45, wherein the order information further includes a rule defining a condition for participating in the auction, and

wherein the third means judges whether the current auction price is equal to or lower than the price that the bidder thinks acceptable to pay based on the rule for each bidder.

49. (previously presented) An auction device in accordance with claim 45, further comprising:

seventh means for determining an abandoned bidder who sent the order information by which it is judged in the third means that the current auction price is higher than the price; and

eighth means for excluding the abandoned bidder.

50. (previously presented) An auction method in accordance with claim 34, wherein a plurality of products are auctioned and a plurality of successful bidders are determined in the auction method.

51. (previously presented) An auction method in accordance with claim 34, wherein the server computer holds the predetermined value.

52. (previously presented) An auction method in accordance with claim 34, further comprising the steps, in the server computer, of:
reducing the auction price if no bidder exists;
checking whether at least one bidder exists,
determining the existing bidder as a successful bidder if one bidder exists,
and
further reducing the auction price if no bidder exists and repeating the checking and succeeding steps.

53. (previously presented) An auction method in accordance with claim 35, further comprising the steps, in the server computer, of:
reducing the auction price if no bidder exists;
checking whether at least one bidder exists,

determining the existing bidder as a successful bidder if one bidder exists,
and

further reducing the auction price if no bidder exists and repeating the
checking and succeeding steps,

wherein the server computer determines that the bidder exists when the
auction price reaches the desired price of the bidder.

54. (previously presented) An auction method in accordance with claim 35,
wherein, in the step e), whether the competitive state occurs or not is
determined based on the amount of products to be auctioned and the sum of
amounts of products that the bidders desire to purchase.

55. (previously presented) An auction method in accordance with claim 54,
wherein, in the step e), if the total of (1) the sum of minimum desired amounts
of bidders who are included in the bidders each having a nonzero desired amount
and who do not purchase for an amount less than a minimum desired amount,
(2) the number of bidders each having a minimum desired amount equal to zero, and
(3) the number of bidders who purchase even if the amount is less than the minimum
desired amount, is equal to or less than the remaining quantity of the products, the
server computer determines that the competitive state does not occur.

56. (previously presented) An auction device in accordance with claim 37,
wherein a plurality of products are auctioned and a plurality of successful
bidders are determined.

U.S. Application No. 09/506,808

57. (previously presented) An auction device in accordance with claim 37,
further comprising means for holding the predetermined value.

58. (previously presented) An auction device in accordance with claim 37,
further comprising seventh means for
reducing the auction price if no bidder exists;
checking whether at least one bidder exists,
determining the existing bidder as a successful bidder if one bidder exists,
and
further reducing the auction price if no bidder exists and repeating the
checking and succeeding process.

59. (previously presented) An auction device in accordance with claim 38,
further comprising seventh means for
reducing the auction price if no bidder exists;
checking whether at least one bidder exists,
determining the existing bidder as a successful bidder if one bidder exists,
and
further reducing the auction price if no bidder exists and repeating the
checking and succeeding process,
wherein the seventh means determines that the bidder exists when the
auction price reaches the desired price of the bidder.

60. (previously presented) An auction device in accordance with claim 37, wherein the fifth means determines whether the competitive state occurs or not based on the amount of products to be auctioned and the sum of amounts of products that the bidders desire to purchase.

61. (previously presented) An auction device in accordance with claim 60, wherein the fifth means determines that the competitive state does not occur if the total sum of (1) the sum of minimum desired amounts of bidders who are included in the bidders each having a nonzero desired amount and who do not purchase for an amount less than the desired amount, (2) the number of bidders each having a minimum desired amount equal to zero, and (3) the number of bidders who purchase even if the amount is less than the desired amount, is equal to or less than the remaining quantity of the products.

62. (previously presented) An auction method in accordance with claim 40, wherein a plurality of products are auctioned and a plurality of successful bidders are determined in the auction method.

63. (previously presented) An auction method in accordance with claim 40, wherein the server computer holds the predetermined value.

64. (previously presented) An auction method in accordance with claim 40, further comprising the steps, in the server computer, of:

reducing the auction price if no bidder exists;

checking whether at least one bidder exists,

determining the existing bidder as a successful bidder if one bidder exists,
and
further reducing the auction price if no bidder exists and repeating the
checking and succeeding step.

65. (previously presented) An auction method in accordance with claim 41,
further comprising the steps, in the server computer, of:
reducing the auction price if no bidder exists;
checking whether at least one bidder exists,
determining the existing bidder as a successful bidder if one bidder exists,
and
further reducing the auction price if no bidder exists and repeating the
checking and succeeding steps,
wherein the server computer determines that the bidder exists when the
auction price reaches the desired price of the bidder.

66. (previously presented) An auction method in accordance with claim 40,
wherein, in the step e), whether the competitive state occurs or not is
determined based on the amount of products to be auctioned and the sum of
amounts of products that the bidders desire to purchase.

67. (previously presented) An auction method in accordance with claim 66,
wherein, in the step e), if the total of (1) the sum of minimum desired amounts
of bidders who are included in bidders each having a nonzero desired amount,
(2) the number of bidders each having a minimum desired amount equal to zero, and

(3) the number of bidders who purchase even if the amount is less than the minimum desired amount, is equal to or less than the remaining quantity of the products, the server computer determines that the competitive state does not occur.

68. (previously presented) An auction device in accordance with claim 45, wherein a plurality of products are auctioned and a plurality of successful bidders are determined.

69. (previously presented) An auction device in accordance with claim 45, further comprising means for holding the predetermined values.

70. (previously presented) An auction device in accordance with claim 45, further comprising seventh means for
reducing the auction price if no bidder exists;
checking whether at least one bidder exists,
determining the existing bidder as a successful bidder if one bidder exists,
and
further reducing the auction price if no bidder exists and repeating the checking and succeeding process.

71. (previously presented) An auction device in accordance with claim 46, further comprising seventh means for
reducing the auction price if no bidder exists;
checking whether at least one bidder exists,

determining the existing bidder as a successful bidder if one bidder exists,
and

further reducing the auction price if no bidder exists and repeating the
checking and succeeding process,

wherein the seventh means determines that the bidder exists when the
auction price reaches the desired price of the bidder.

72. (previously presented) An auction device in accordance with claim 45,
wherein the fifth means determines whether the competitive state occurs or
not based on the amount of products to be auctioned and the sum of amounts of
products that the bidders desire to purchase.

73. (previously presented) An auction device in accordance with claim 72,
wherein the fifth means determines the competitive state does not occur if the total
sum of (1) the sum of minimum desired amounts of bidders who are included in
bidders each having a nonzero desired amount and who do not purchase for an
amount less than a minimum desired amount, (2) the number of bidders each having
a minimum desired amount equal to zero, and (3) the number of bidders who
purchase even if the amount is less than the minimum desired amount, is equal to or
less than the remaining quantity of products.

74. (previously presented) An auction method in accordance with claim 34,
wherein the step f) further includes the step of determining a successful price
of the successful bidder, and wherein the successful price is equal to or less than the
price that the successful bidder thinks acceptable to pay for the product and higher

than the auction price set before the competitive state is resolved by the predetermined value.

75. (previously presented) An auction device in accordance with claim 37, wherein the sixth means determines a successful price of the successful bidder, and wherein the successful price is equal to or less than the price that the successful bidder thinks acceptable to pay for the product and higher than the auction price set just before the competitive state is resolved by the predetermined value.

76. (previously presented) An auction method in accordance with claim 40, wherein the step f) further includes the step of determining a successful price of the successful bidder, and wherein the successful price is equal to or less than the price that the successful bidder thinks acceptable to pay for the product and higher than the auction price set just before the competitive state is resolved by the predetermined value.

77. (previously presented) An auction device in accordance with claim 45, wherein the sixth means determines a successful price of the successful bidder, and wherein the successful price is equal to or less than the price that the successful bidder thinks acceptable to pay for the product and higher than the auction price set just before the competitive state is resolved by the predetermined value.